Transformations Day 2 – Homework Name:_____

1. **Graph quadrilateral *ABCD* with vertices *A*(-4, 2), *B*(-3, 4), *C*(-1, 4), and *D*(-2, 2).**

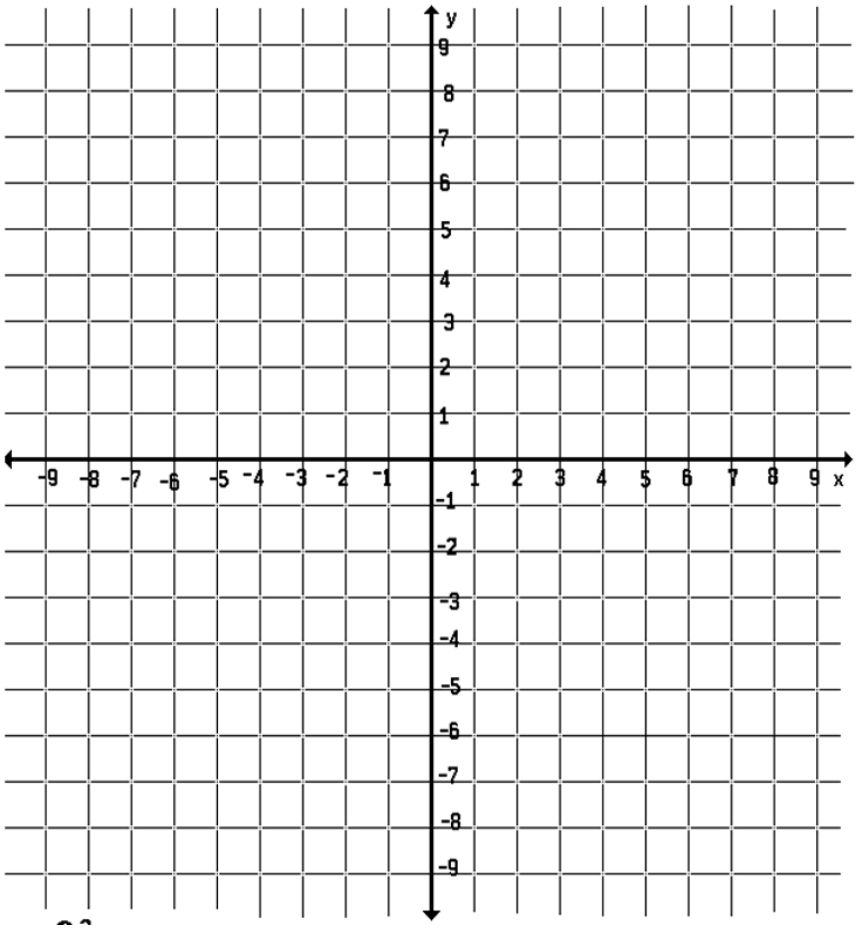
2. **Graph the dilation with a scale factor *k* = 2. Label the new quadrilateral FGHJ**

   F (_____,_____)

   G (_____,_____)

   H (_____,_____)

   J (_____,_____)



3. **Graph the reflection of FGHJ a across the *x-axis*. Label this quadrilateral KLMN and list the vertices below:**

   K (_____,_____)

   L (_____,_____)

   M (_____,_____)

   N (_____,_____)

4. **Graph the reduction of KLMN with a scale factor $k = \frac{1}{2}$. Label this quadrilateral OPQR and list the vertices below:**

   O (_____,_____)

   P (_____,_____)

   Q (_____,_____)

   R (_____,_____)

5. **Now translate OPQR *right 5 units and up 2*. Label this quadrilateral WXYZ below and graph**

   W (_____,_____)

   X (_____,_____)

   Y (_____,_____)

   Z (_____,_____)

Now you be the teacher…..

6. **Graph your own quadrilateral *ABCD* and list the vertices here:**

   A (_____,_____) B (_____,_____) C (_____,_____) D (_____,_____)

7. **Dilate quadrilateral ABCD using your own scale factor. Label the new quadrilateral FGHJ, list the new vertices and tell me your k value.**

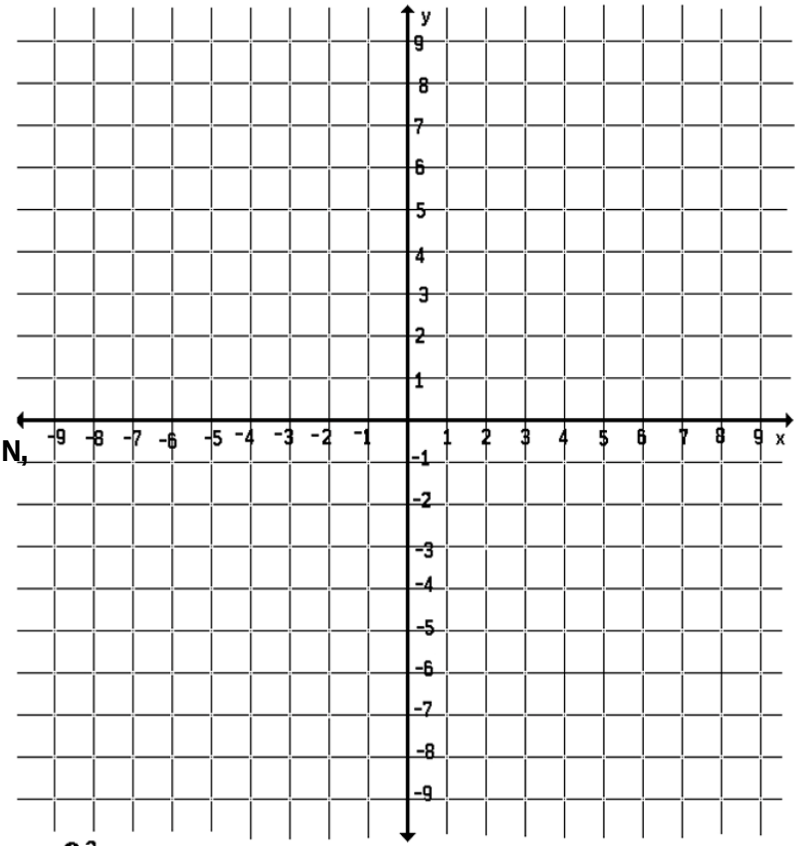
   ***K*=_____**

   F (_____,_____)

   G (_____,_____)

   H (_____,_____)

   J (_____,_____)



8. **Reflect FGHI Across the axis of your choosing. Label this quadrilateral KLMN, circle the axis you reflected across and list the vertices below:**

   x-axis y-axis

   K (_____,_____)

   L (_____,_____)

   M (_____,_____)

   N (_____,_____)

9. **Reduce of KLMN by a scale factor of your Choosing. Label this quadrilateral OPQR, list the vertices , and tell me your k value (hint: k must be a fraction)**

   ***K*=_____**

   O (_____,_____)

   P (_____,_____)

   Q (_____,_____)

   R (_____,_____)

10. **Now translate OPQR twice. Label this quadrilateral WXYZ below, list the vertices and tell me your translations.**

    Transformation 1:_____

    Transformation 2:_____

    W (_____,_____)

    X (_____,_____)

    Y (_____,_____)

    Z (_____,_____)